

REMARKS

Claims 1-20 are pending in the application. New claim 20 has been added and no new matter has been added.

It is noted that the claims amendments are made only for pointing out the claimed invention more particularly, and not for distinguishing the invention over the prior art, narrowing the claims, or for statutory requirements for patentability. Further Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges the Examiner's indication that claims 4-6 would be allowable if rewritten in independent form. Applicant submits, however, that all pending claims are allowable.

Claims 1 and 8 stand rejected under 35 U.S.C. §103 over Walke et al. (U.S. Patent No. 7,095,722) (hereinafter Walke) in view of Margon et al. (U.S. Patent Publication No. 2003/0214933) (hereinafter Margon). **Claims 9 and 11-15 stand rejected under 35 U.S.C. §103(a)** over Walke in view of Margon and further in view of Lor et al. (U.S. Patent Publication No. 2004/0068668) (hereinafter Lor). **Claim 17 stands rejected under 35 U.S.C. §103(a)** over Lor in view of Margon. **Claims 2-3, 7, 10, 16, and 18-19 stand rejected under 35 U.S.C. §103(a)** over Walke in view of Margon and further in view of Whelan et al. (U.S. Patent Publication No. 2004/0203593)(hereinafter Whelan).

Applicant respectfully traverses these rejections in the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the claimed invention, as recited in independent claim 1, is directed to a method of limiting communication access between wireless LAN terminals of a wireless LAN, including the steps of allocating different subnetwork addresses to **respective wireless LAN terminals**, setting default gateways of the respective wireless LAN terminals as a single access limiter, and returning a communication packet between the wireless LAN terminals from said access limiter which is set as said default gateways, for providing an access limiting function to limit communication access between the **wireless LAN terminals**.

Another exemplary aspect of the claimed invention, as recited in independent claim 9, is directed to a wireless LAN system, including a wireless LAN access point configured to wirelessly associate with a plurality of wireless terminals and an access limiter configured to control communications between a first of the plurality of the wireless terminals and a second of the plurality of the wireless terminals, the first wireless terminal and the second wireless terminal communicating through the access limiter.

Another exemplary aspect of the claimed invention, as recited in independent claim 17, is directed to a wireless access point and an access limiter comprising a plurality of LAN interfaces associated to the wireless access point, the access limiter having an access limiting apparatus to pass or drop a received packet to thereby inhibit or permit communications between a plurality of wireless terminals; and a routing apparatus for distributing packets selectively between the wireless LAN access point depending on a destination of the packets between the plurality of wireless terminals, and communication between any of the plurality of wireless terminals is routed through the access limiter.

A conventional wireless LAN, however, does not limit communication between wireless LAN terminals of a wireless LAN. As a result, communication between wireless terminals can consume all of the LAN's resources. For example, an FTP transfer between terminals in the wireless network can lead to 100 percent of the wireless LAN transferring the files between the terminals, leading to a loss of function during that transfer.

The claimed invention provides, however, "an access limiting function to limit communication access between the wireless LAN terminals." That is, within a wireless LAN, access between terminals is controlled. This is feature is important for preventing two wireless terminals from consuming all the resources of a wireless LAN (See the Application, page 4, lines 17-26).

II. THE ALLEGED PRIOR ART REFERENCE

A. Walke and Margon

On page 2 of the Office Action, the Examiner alleges that Walke and Margon would be combined to teach the claimed invention described by claims 1 and 8. However, Walke and Margon, either alone or in combination, do not teach or suggest every element as recited in the claimed invention.

To establish a prima facie case of obviousness, several basic criteria must be met. First, rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness (*In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int'l. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007)). In addition, the prior art reference (or references when combined) must still teach or suggest all the claim limitations.

In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Walke is directed a packet transfer radio system where mobile terminals are utilized as relay stations to extend the range of a packet transferring radio base station. Contrary to the allegations of the Examiner, however, Walke does not teach or suggest the alleged elements of the claimed invention. Indeed, the Examiner does not attempt to explain how Col. 1, line 47 to Col. 2, line 65 even relates to the recited “setting default gateways of the respective wireless LAN terminals as a single access limiter,” of claim 1. In fact, the words and phrases “default” and “gateway,” do not appear in Walke. Instead, the highlighted portion of Walke merely discusses how a mobile terminal is used as a relay terminal.

Next, with respect to the Examiner’s allegations regarding “returning a communication packet between the wireless LAN terminals from said access limiter which is set as said default gateways, for providing an access limiting function to limit communication access between the wireless LAN terminals,” as recited in claim 1, the highlighted portion of Walke does not teach or suggest the claimed invention. Indeed, the claimed “limiting function” is not even discussed. Instead, the highlighted portion of Walke teaches modifying a MAC frame to navigate the forwarding mobile terminal. That is, Walke does not teach or suggest the claimed invention.

Next, the Examiner admits that Walke does not teach allocating different subnetwork addresses to respective wireless LAN terminals in a wireless LAN access point. The Examiner then alleges that Margon makes up for Walke’s admitted deficiency.

With respect to Margon, the Examiner alleges that Margon is an analogous art and that Margon teaches allocating different subnetwork addresses to respective wireless LAN terminals. That is, in particular, the Examiner alleges that because one or more zones can be

created that correspond to sub-networks of an IP-network, Margon therefore teaches the claimed invention.

First, the Examiner relies on non-analogous art. The claimed invention is directed to wireless LAN access limiting while Margon is directed to broadcast differentiation where the broadcast is divided into zones based on geographic location.

To determine analogous art, the examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992)

Margon, on the other hand is non-analogous art, and even if it taught relevant subject matter, is related to a different broadcasting endeavor than the claimed invention. That is, Margon is not reasonably pertinent to the particular problem to which the current application is directed.

In addition, contrary to the Examiner's allegation, however, the creation of zones that correspond to sub-networks does not teach or suggest "allocating different subnetwork addresses to respective wireless LAN terminals in a wireless LAN access point," as recited in claim 1, and as similarly recited in independent claims 9 and 17. Instead, Margon only teaches that substations 104 each have a preassigned address. See Margon, Paragraph [0038]. The data is broadcast to all stations, but the data is only opened by the station having the

intended address. The broadcasting method of Margon therefore has no relevance to the claimed invention, and does not teach or suggest “subnetwork addresses” for a wireless LAN access point.

Margon teaches an address scheme that includes an IP address for a remote station. Therefore, data packets are sent to all the stations that can use Margon’s broadcasting scheme. Data meant for an individual station will only have the IP address of that station, and other stations that receive that broadcast data packet will discard it instead of opening it. *See* Margon, Paragraph [0039]. These broadcasts are based on geographical zones instead of actual networks. Thus, for example, Zone 3 of Figure 5 is simply in the general direction to the “left” of Base 102 and the data is broadcast in that direction. *See* Margon, Paragraph [0051] (where the zones are grouped according to physical location). That is, the data is sent based on a direction of a receiver and therefore Margon is not pertinent with respect to wireless LAN networks.

Therefore, Margon is not teaching “allocating different subnetwork addresses to respective wireless LAN terminals in a wireless LAN access point,” but rather merely giving different receivers different addresses in a zone, the zone being defined by a physical location and not by a wireless terminal network. In addition, Margon teaches a form of communication that is one dimensional, as the different stations 104 do not communicate between each other, instead only receiving communications from base 102.

In sum, Walke and Margon, alone or in combination, do not teach or suggest every element as recited in independent claim 8. Furthermore, Applicant submits that Walke would not be combined with Margon because Margon is non-analogous to Walke. Accordingly, Applicant submits that independent claim 1 is in condition for allowance.

With respect to claims 2-8, which depend from independent claim 1, each of these claims contain all the limitations contained within claim 1 and are therefore also in condition for allowance.

B. Walke, Margon, and Lor

On page 4 of the Office Action, the Examiner alleges that Walke, Margon, and Lor would be combined to teach the invention as recited in claims 9 and 11-15. However, contrary to the Examiner's allegation, none of the alleged references, alone or in combination, teach or suggest the claimed inventions of claims 9 and 11-15.

First, Applicant submits that the combination of Walke and Margon has all the deficiencies as stated above with respect to independent claim 1. Furthermore, the Examiner admits that neither Walke nor Margon teaches "an access limiter configured to control communications between a first of the plurality of the wireless terminals and a second of the plurality of the wireless terminals at the wireless LAN access point," as recited in claim 9

The Examiner then alleges that Lor makes up for this admitted deficiency. Contrary to the Examiner's allegation, however, the alleged combination of Lor, Walke, and Margon fails to teach or suggest the invention as recite in independent claim 9.

Applicant first submits that Lor does not teach or suggest, among other things "wherein the first wireless terminal and the second wireless terminal communicate through the access limiter," and "wherein each of the first wireless terminal and the second wireless terminal are allocated different subnetwork addresses," as recited in independent claim 9. That is, contrary to the Examiner's allegations, Lor is directed to monitoring the status of a single wireless terminal in a wireless network. Referring to FIGS. 3 and 5 of Lor, various

“handoff” scenarios are illustrated in which wireless device 322, for example, passes over to the position of wireless device 323. Instead of teaching multiple wireless terminals of a wireless LAN, Lor teaches single wireless terminals moving from wireless LAN to wireless LAN.

Referring to FIG. 1 of Lor, LAN 101 includes several access points 111, 112, 113, 114, and 115. Each of these points may be considered a wireless network because they are taught as the point at which wireless devices 120-129 access the overall network or LAN 101.

Where an access point does include multiple wireless devices, such as access point 115 and wireless devices 128 and 129, Lor does not teach or suggest “a method of limiting communication between wireless LAN terminals of a wireless LAN,” as recited in claim 1. Instead, Lor teaches controlling the access for each of the wireless devices. Thus, paragraphs [0036-46] teach security arrangements for the access points, such as preventing log-in fraud and not an “access limiter,” as recited in claim 9.

Furthermore, contrary to the Examiner’s allegations, paragraphs [0047-63] teach security policies on network use. Lor merely provides that access points may include the capability to control access. *See* Lor, Paragraph [0048]. One method involves simply inspecting and discarding packets that are inefficient. *See* Lor, Paragraph [0055]. However, similar to the above discussion of paragraphs [0036-0046], no part of Lor teaches or suggests, “an access limiter configured to control communications between a first of the plurality of the wireless terminals and a second of the plurality of the wireless terminals at the wireless LAN access point,” as recited in claim 9.

That is, the Examiner is improperly reading claim limitations into an alleged reference that do not exist. In particular, Lor is not on point to the problem that the claimed invention

is directed, nor does Lor provide any teaching or suggestion that would be relevant to the claimed invention.

In sum, Walke, Lor, and Margon, alone or in combination, do not teach or suggest every element as recited in independent claim 9. Accordingly, Applicant submits that independent claim 9 is in condition for allowance.

With respect to claims 10-16, which depend from independent claim 9, each of these claims contain all the limitations contained within claim 9 and are therefore also in condition for allowance.

C. Lor and Margon

On page 9 of the Office Action, the Examiner alleges that Lor and Margon would be combined to teach the invention as recited in independent claim 17. Applicant submits, however, that the alleged combination fails to teach or suggest every element as recited in independent claim 17.

First Margon has all the deficiencies as discussed above with respect to subnetwork addresses. Indeed, as discussed above, Lor fails to teach or suggest the claimed access limiter. Instead, Lor is directed to monitoring the status of a single wireless terminal in a wireless network. Referring to FIGS. 3 and 5 of Lor, various “handoff” scenarios are illustrated in which wireless device 322, for example, passes over to the position of wireless device 323. Instead of teaching multiple wireless terminals of a wireless LAN, Lor teaches single wireless terminals moving from wireless LAN to wireless LAN.

Referring to FIG. 1 of Lor, LAN 101 includes several access points 111, 112, 113, 114, and 115. Each of these points may be considered a wireless network because they are

taught as the point at which wireless devices 120-129 access the overall network or LAN 101.

Where an access point does include multiple wireless devices, such as access point 115 and wireless devices 128 and 129, Lor does not teach or suggest “an access limiting apparatus to pass or drop a received packet to thereby inhibit or permit communications between a plurality of wireless terminals,” as recited in claim 17. Instead, Lor teaches controlling the access for each of the wireless devices. Thus, paragraphs [0036-46] teach security arrangements for the access points, such as preventing log-in fraud and not the claimed invention.

Furthermore, Lor does not teach or suggest “a routing apparatus for distributing packets selectively between the wireless LAN access point depending on a destination of the packets between the plurality of wireless terminals,” as recited in claim 17. Instead, conventional wireless networks do not send packets designed for identical subnets through a default gateway. *See e.g.*, the Application, page 3, lines 4 and 5. Since different subnets are allocated to respective wireless LAN terminals, wireless LAN terminals are unable to communicate directly with each other. A wireless LAN terminal thus sends a packet destined for another wireless LAN terminal to the default gateway as an access limiter. *See e.g.*, the Application, page 14, lines 17-21.

While Lor does teach limiting access by simply pruning disfavored downloads, Lor does not teach or suggest the claimed invention because Lor is discussing communication from a single wireless device to a network, and not communication between wireless devices at a single terminal.

In sum, Lor and Margon, alone or in combination, do not teach or suggest every element as recited in independent claim 17. Accordingly, Applicant submits that independent

claim 17 is in condition for allowance.

With respect to claims 18 and 19, which depend from independent claim 17, each of these claims contain all the limitations contained within claim 17 and are therefore also in condition for allowance.

III. NEW CLAIMS

Applicant has added new claim 20 to claim additional features of the invention and to provide varied protection for the claimed invention. This claim is independently patentable because of the novel features recited therein.

Applicant respectfully submits that new dependent claim 20 presents no new matter and is supported in the specification.

Applicant submits that new claim 20 is patentable over the cited references at least for analogous reasons to those set forth above with respect to claims 1-19.

IV. FORMAL MATTERS AND CONCLUSION

Finally, Applicant respectfully requests that the Examiner consider the references supplied to the USPTO via the Information Disclosure Statement filed December 19, 2007 and that these five (5) references be considered on the Examiner's Notice of References Cited form.

In view of the foregoing, Applicant submits that claims 1-20, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

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Respectfully Submitted,



Joseph P Hrutka
Registration 53,918

Sean M. McGinn, Esq.
Registration No. 34,386

McGinn Intellectual Property Law Group, PLLC
8321 Old Courthouse Rd., Suite 200
Vienna, Virginia 22182
(703) 761-4100
Customer No. 21254